REMARKS

Claims 13-40, as amended, remain herein.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made".

This Second Preliminary Amendment is submitted to place the claims of this application in the condition in which applicant wishes to have them initially examined.

Claims 1-12 have been cancelled without prejudice or disclaimer and replaced by claims 13-40.

The specification has been edited to include minor wording changes for clarity.

Examination of this application on its merits is respectfully requested.

Should the Examiner deem that any further action by the applicants would be desirable to place this application in even better condition for issue, the Examiner is requested to telephone applicants' undersigned representatives.

Respectfully submitted,

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Attachment: Version with Markings
to Show Changes Made

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not provided with a controller; an appliance utilizing operation data of another appliance related therewith has a means of linkedly controlling for operating in accordance with kinds of the related appliance after acquiring the operation data thereof; the appliance exchanges necessary information of transmitting conditions before transmitting and receiving the operation data of the related appliance for the purpose of its appropriate operations; and consequently the appliance acquires the necessary operation data of the related appliance depending on the situation, leading to linked control and operation.

A further aspect of the invention is characterized by comprising a device for setting linked operations in installing an appliance control network system and introducing another appliance thereto; and in that the device sets the function of linkedly operating at an appliance.

~~Three other~~ Other aspects of the invention are characterized in that an appliance for outputting data ~~according to any one of a second and a third aspects of the invention~~ is a sensor for detecting the presence of persons by voice, motion, infrared ray and the like; and an appliance utilizing the data is an air conditioner. Needless to say, the appliance may be an illuminator, a ventilation fan or the like.

~~Three other~~ Other aspects of the invention are characterized in that an appliance for outputting data is an electric power sensor such as an electric current meter; and an appliance utilizing the data is an air

conditioner with a large electric power consumption.

A still further aspect of the invention is characterized in that a controller watches electric power consumption and electric current consumption of an appliance connected to an appliance control network system; and the controller controls the electric power consumption and the electric current consumption less than a predetermined value. Specifically, before the electric power consumption and the electric current consumption surpass the predetermined value, a load of an appliance with less necessity should be reduced and an appliance should be switched off and also a user should be informed of a predetermined warning.

A still further aspect of the invention ~~similar to an eighth aspect of the invention~~ is characterized in that a device for setting linked operations, not a controller, controls total electric power consumption of appliances (including NFB and a safety device serving therefor) less than a predetermined value.

~~Three other~~ Other aspects of the invention are characterized in that an appliance and a controller common to appliances are provided with a controller or a means of linkedly controlling in an appliance control network system. Accordingly, the following disorders due to operations by a user can be effectively prevented from being caused; total electric power consumption of appliances surpasses a predetermined value, an air conditioner and a warm air circulator are simultaneously in operation, or

the like. In the case of a controller common to appliances, several measures for the disorders can be displayed on a display unit thereof, and thereafter the user can choose from the measures.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a view showing a configuration of a home network system of conventional household electric appliances.

Fig. 2 is a view showing another configuration of a home network system of conventional household electric appliances.

Fig. 3 is a flow chart showing basic procedures for linked operations between appliances in embodiments of the present invention.

Fig. 4 is a view showing a constitution of Embodiment 1 of the present invention.

Fig. 5 is a view showing a configuration of a controller in Embodiment 1 of the present invention.

Fig. 6 is a view showing another configuration of a controller in Embodiment 1 of the present invention.

Fig. 7 is a view showing a further configuration of a controller in Embodiment 1 of the present invention.

Fig. 8 is a view showing information to be transmitted from household electric appliances stored in ROM of the above-mentioned controller and data of other household electric appliances serving for appropriate

predetermined access to other household electric appliances is executed through an electric wire in accordance with a user's direction for linked operations and an internal program, and thereafter the household electric appliance decides by a response thereto whether other household electric appliances are linkedly operated, resulting in individual operations or linked operations.

Next, the contents of a demand for setting information of transmitting conditions, a setting of reception and transmission of operation data and reception of both are described as a part of linked operations by an example.

Nowadays, many appliances have a function of informing or enabling to inform or direct a user of operating conditions thereof for the purpose of user's convenience of controlling. The examples are as follows; a ~~periodical~~ periodic printout of transmit-receive records in a facsimile, a display of temperature to be set in an air conditioner, and besides household electric appliances a display of mileage, fuel and lubricating oil in a car.

Moreover, appliances display to a user operating conditions or functions to be performed so that the user chooses which function is performed. For example, many video tape recorders light a recording lamp and display on a display screen of a televisor a standard-speed recording, a 3-speed recording or a commercial-skip recording to be

chosen by the user with a remote controller. Air conditioners display on a remote controller a choice between cooling and heating, a setting of temperature, operating time and the like, leading to the performance of user's desirable function.

In Embodiment 1, household electric appliances basically utilize the functions so that a switching and a choice of operating mode are executed by a user. In the case of linked operations, however, the switching and the choice of operating mode are executed by a controller, not the user. Needless to say, the contents of data and the frequency of exchanges thereof vary with the situation.

Next, transmission and reception of necessary data for linked operations are described by an example.

An appliance periodically stores a predetermined operation data or ~~update~~updates the data on every change in operating conditions, and additionally the data can be output by a user. This is such that the conditions of units are displayed in a central control room, a driver's seat and the like in plants for vessels and aircrafts; and flight conditions are constantly recorded at a flight recorder in aircrafts.

The examples are as follows: a display of the number of times documents are corrected in using a word processor; a display of the number of copying papers in a copying machine; a small display of switch-on in a televisor; a display of a channel on which another program than a

currently watched program is on record in a video tape recorder; a display of current conditions in an electric rice cooker; and the like.

Furthermore, a household electric appliance mutually adjusts the performance of its function in conformity with communications protocols. Specifically, facsimiles mutually contact on color printing, paper size and a transmission in a detail mode in conformity with the Protocol CCITT T30 by Comite consultatif international telegraphique et telehonique, and after such contact, a transmitting facsimile generally processes image data for adjusting to both of the transmitting and receiving facsimiles, transmission and reception are executed between the facsimiles. Video tape recorders read out a time signal in airwaves received by a televisor connected thereto to display an exact time to a user and utilize for reserved recording.

An appliance specifies kinds and the contents of data of other appliances whose data are necessary therefor. For example, operating conditions of air conditioners and refrigerators are generally unnecessary for video tape recorders, particularly, reserved recording. Accordingly, when the household electric appliance demands operating conditions from other household electric appliances or set information of transmitting conditions, a program operates such that the appliance demands necessary data from only other necessary appliances and only the data are transmitted and received is installed in advance or can be externally set

(the program is technologically installed in applications softwares and communications middlewares. Protocols and programs, therefore, have been standardized.).

Consequently, the above-mentioned functions of household electric appliances are utilized for a home network system of the present invention. In other words, household electric appliances can be incorporated into a home network system by applying the functions.

Based on the above, although the above-mentioned description is partially repeated, the execution of linked operations of household electric appliances in a home network system of Embodiment 1 and a basic decision on the processing of transmitting and receiving necessary data for the execution are described in accordance with an understandable example referring to a flow chart shown in Figure 3.

Regarding the execution of linked operations, if household electric appliances are not connected to a home network or do not have other household electric appliances to be linked thereto even in connection with a home network, linked operations are not set and household electric appliances are individually operated. Taking air conditioners for example, if an air conditioner is not connected to a home network or even in connection with a home network, wherein the other household electric appliances are appliances such as a facsimile and a video tape recorder which are not related with the operations thereof, the air conditioner is

individually operated regardless of the home network. Then, a user of the air conditioner controls switching and power level thereof, or the air conditioner is controlled under a program set by the user in its built-in timer.

That is, the steps of a1 and a2 in Figure 3 (2) are executed.

On the other hand, the steps of b1, b2 and b3 in Figure 3 (1) are executed in the presence of household electric appliances to be linked in a home network. First, a household electric appliance transmits a demand for querying to other household electric appliances in a home network whether to be linked thereto. On a response from any household electric appliances to be linked, the household electric appliance decides that the household electric appliances should be linked and executes the step of b1. That is, the household electric appliance transmits a demand for querying information of transmitting conditions of operation data of the household electric appliances to be linked, and the household electric appliance acquires the information of transmitting conditions in response thereto. Taking the above-mentioned air conditioners for example, when an illuminator is a household electric appliance to be linked in a home network, an air conditioner receives a response from the illuminator and acquires its transmittable operating conditions (lighting conditions and illuminance) and transmitting conditions (periodically or on every change in operating conditions; broadcasting, transmitting to a specific address or

VERSION WITH MARKINGS TO SHOW CHANGES MADE

What is claimed is

1. (Cancelled) A control network system of an appliance comprising a controller and a plurality of appliances connected through a network;

wherein the appliances acquire necessary operation data of another appliance from the controller and utilize the operation data for controlling an efficient operation thereof;

each of said appliances comprising:

a means of maintaining an information of a transmitting condition of operation data thereof;

a means of controlling the operation data thereof by a predetermined program;

a means of controlling the information of the transmitting condition for receiving a demand for transmitting the information of the transmitting condition by said controller, and transmitting and setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in response thereto; and

a means of controlling a transmission of the operation data for transmitting the operation data thereof controlled by said means of controlling the operation data in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting

condition;

said controller comprising:

a means of controlling the information of the transmitting condition for demanding a transmission of the data maintained by said means of maintaining the information of the transmitting condition from said means of controlling the information of the transmitting condition of each of said appliances, receiving the information of the transmitting condition transmitted from each of the appliances in response thereto, setting a control item in the information of the transmitting condition, and demanding a setting of the information of the transmitting condition of a control item when the information of the transmitting condition does not include the necessary control item; and

a means of acquiring the operation data for acquiring the operation data when the information of the transmitting condition of each of said appliances received by said means of controlling the information of the transmitting condition includes a transmission of the operation data of the appliance to said controller, and demanding a transmission of the operation data from an appliance to acquire the operation data when the information of the transmitting condition of each of said appliances received by said means of controlling the information of the transmitting

condition does not include the transmission of the operation data of the appliance to said controller.

2. (Cancelled) A control network system of an appliance comprising a plurality of appliances connected through a network;

wherein each of the appliances receives necessary operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

each of the appliances whose operation data are utilized comprising:

a means of maintaining an information of a transmitting condition of operation data thereof;

a means of controlling a transmission of the operation data for controlling the operation data thereof by a predetermined program, and transmitting the operation data thereof in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition; and

a means of setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition received through the network;

each of the appliances utilizing operation data of another appliance

comprising:

a means of transmitting predetermined data for setting the information of the transmitting condition to the means of setting the information of the transmitting condition of another related appliance;

a means of setting a reception of the operation data for receiving the operation data transmitted from another appliance in accordance with the demand data for setting the information of the transmitting condition, and setting a necessary storage of the operation data in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an efficient operation thereof in accordance with the operation data of another appliance received and set by the means of setting the reception of the operation data.

3. (Cancelled) A control network system of an appliance comprising a plurality of appliances which are connected through a network and are set so as to be linkedly operated by a wearable device for setting a linked operation;

wherein each of the appliances receives operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

each of said appliances comprising:

a means of maintaining an information of a transmitting condition of operation data thereof;

a means of controlling a transmission of the operation data for controlling the operation data thereof by a predetermined program, and transmitting the operation data thereof in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition;

a means of setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition received through the network;

a means of setting a reception of the operation data for receiving the operation data transmitted from another appliance in accordance with the demand data for setting the information of the receiving condition received through the network, and setting a necessary storage of the operation data in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an efficient operation thereof in accordance with the operation data of another appliance received and set by the means of setting the

reception of the operation data;

said wearable device for setting a linked operation comprising:

a means of transmitting demand data for setting the information of the transmitting condition for transmitting predetermined demand data for setting the information of the transmitting condition to each of the appliances, and setting the information of the transmitting condition in setting the network and introducing another appliance thereto; and

a means of transmitting demand data for setting the information of the receiving condition of the operation data for transmitting the demand data for setting the reception of the operation data to each of the appliances, and receiving and setting the operation data in setting the network and introducing another appliance thereto.

4. (Cancelled) A control network system of an appliance comprising a plurality of appliances including an air conditioner and a sensor for a presence of a person, which are connected through a network;

wherein each of the appliances receives necessary operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

said sensor for a presence of a person comprising:

a means of maintaining an information of a transmitting condition of

detection data for a presence of a person which are operation data thereof;

a means of controlling a transmission of the operation for controlling the detection data for the presence of the person by a predetermined program, and transmitting the controlled detection data for the presence of the person in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition; and

a means of setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition received through the network;

said air conditioner comprising:

a means of transmitting predetermined demand data for setting the information of the transmitting condition to the means of setting the information of the transmitting condition of said sensor for the presence of the person;

a means of setting the reception of the operation data for receiving the detection data for the presence of the person transmitted from the sensor for the presence of the person in accordance with the

demand data for setting the information of the transmitting condition, and setting a necessary storage of the detection data for the presence of the person in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an operation of the air conditioner in accordance with the detection data for the presence of the person received and set by the means of setting the reception of the operation data.

5. (Cancelled) A control network system of an appliance comprising a plurality of appliances including an air conditioner and an electric power sensor, which are connected through a network;

wherein each of the appliances receives necessary operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

said electric power sensor comprising:

a means of maintaining an information of a transmitting condition of detection data for an electric power which are operation data thereof;

a means of controlling a transmission of the operation for controlling the detection data for the electric power by a predetermined program, and transmitting the controlled detection data for the electric power in accordance with the information of the

transmitting condition maintained by said means of maintaining the information of the transmitting condition; and

a means of setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition received through the network;

said air conditioner comprising:

a means of transmitting predetermined demand data for setting the information of the transmitting condition to the means of setting the information of the transmitting condition of said electric power sensor;

a means of setting a reception of the operation data for receiving the detection data for the electric power transmitted from the electric power sensor in accordance with the demand data for setting the information of the transmitting condition, and setting a necessary storage of the detection data for the electric power in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an operation of the air conditioner in accordance with the detection data for the electric power of the electric power sensor received and set by the means of setting the reception of the operation data.

6. (Cancelled) A control network system of an appliance comprising a plurality of household electric appliances including an air conditioner and a sensor for a presence of a person, which are connected through a network and are set so as to be linkedly operated by a wearable device for setting a linked operation;

wherein each of the appliances receives necessary operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

said sensor for a presence of a person comprising:

a means of maintaining an information of a transmitting condition of detection data for a presence of a person which are operation data thereof;

a means of controlling a transmission of the operation for controlling the detection data for the presence of the person by a predetermined program, and transmitting the controlled operation data thereof in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition; and

a means of setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition

received through the network;

said air conditioner comprising:

a means of setting a reception of the operation data for receiving the detection data for the presence of the person transmitted from the sensor for the presence of the person in accordance with the demand data for setting a method of the receiving condition received through the network, and setting a necessary storage of the detection data for the presence of the person in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an operation of the air conditioner in accordance with the detection data for the presence of the person received and set by the means of setting the reception of the operation data;

said wearable device for setting a linked operation comprising:

a means of transmitting demand data for setting the information of the transmitting condition for transmitting demand data for setting the information of the transmitting condition to the appliances including said sensor for the presence of the person, and setting the information of the transmitting condition in setting the network and introducing another appliance thereto; and

a means of transmitting demand data for setting the reception of the

operation data for transmitting the information of the receiving condition of the operation data to the appliances including said air conditioner, and receiving and setting the operation data in setting the network and introducing another appliance thereto.

7. (Cancelled) A control network system of an appliance comprising a plurality of household electric appliances including an air conditioner and an electric power sensor, which are connected through a network and are set so as to be linkedly operated by a wearable device for setting a linked operation;

wherein each of the appliances receives necessary operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

said electric power sensor comprising:

a means of maintaining an information of a transmitting condition of detection data for an electric power which are operation data thereof;

a means of controlling a transmission of the operation for controlling the detection data for the electric power by a predetermined program, and transmitting the controlled operation data thereof in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition; and

a means of setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition received through the network;

said air conditioner comprising:

a means of setting a reception of the operation data for receiving the detection data for the electric power transmitted from the electric power sensor in accordance with the demand data for setting a method of the receiving condition received through the network, and setting a necessary storage of the detection data for the electric power in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an operation of the air conditioner in accordance with the detection data for the electric power received and set by the means of setting the reception of the operation data;

said wearable device for setting a linked operation comprising:

a means of transmitting demand data for setting the information of the transmitting condition for transmitting demand data for setting the information of the transmitting condition to the appliances including said electric power sensor, and setting the information of the transmitting condition in setting the network

and introducing another appliance thereto; and

a means of transmitting demand data for setting the reception of the operation data for transmitting the information of the receiving condition of the operation data to the appliances including said air conditioner, and receiving and setting the operation data in setting the network and introducing another appliance thereto.

8. (Cancelled) A control network system of an appliance comprising a controller and a plurality of appliances connected through a network;

wherein the appliances acquire necessary operation data of another appliance from the controller and utilize the operation data for controlling an efficient operation thereof;

each of said appliances comprising:

a means of maintaining an information of a transmitting condition of operation data including at least one of an electric power consumption and an electric current consumption thereof;

a means of controlling the operation data including at least one of the electric power consumption and the electric current consumption thereof by a predetermined program;

a means of controlling the information of the transmitting condition for receiving a demand for transmitting the information of the transmitting condition including at least one of the electric power consumption and the electric current consumption by said

controller, and transmitting and setting the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition in response thereto;

a means of controlling a transmission of the operation data for transmitting the operation data including at least one of the electric power consumption and the electric current consumption thereof controlled by said means of controlling the operation data in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition; and

a means of controlling the electric power consumption for controlling at least one of the electric power consumption and the electric current consumption in accordance with a control by said controller;

said controller comprising:

a means of controlling the information of the transmitting condition for demanding a transmission of the data maintained by said means of maintaining the information of the transmitting condition from said means of controlling the information of the transmitting condition of each of said appliances, receiving the information of the transmitting condition transmitted from each of the appliances in response thereto, setting a control item in

the information of the transmitting condition, and demanding a setting of the information of the transmitting condition of a control item when the information of the transmitting condition does not include the necessary control item including at least one of the electric power consumption and the electric current consumption;

a means of acquiring the operation data for acquiring the operation data when the information of the transmitting condition of each of said appliances received by said means of controlling the information of the transmitting condition includes the operation data including at least one of the electric power consumption and the electric current consumption of the appliance, and demanding a transmission of the operation data from an appliance to acquire the operation data when the information of the transmitting condition of each of said appliances received by said means of controlling the information of the transmitting condition does not include the operation data including at least one of the electric power consumption and the electric current consumption of the appliance; and

a means of controlling a total electric power consumption for controlling so that at least one of a total electric power consumption and a total electric current consumption of the

plurality of appliances connected through the network does not surpass a predetermined value in accordance with the operation data acquired by said means of acquiring the operation data.

9. (Cancelled) A control network system of an appliance comprising a plurality of appliances which are connected through a network and are set so as to be linkedly operated by a wearable device for setting a linked operation;

wherein each of the appliances receives operation data of another appliance through the network and controls an efficient operation thereof to be linked to the received operation data;

each of said appliances comprising:

a means of maintaining an information of a transmitting condition of operation data including at least one of an electric power consumption and an electric current consumption thereof;

a means of controlling a transmission of the operation data for controlling the operation data including at least one of the electric power consumption and the electric current consumption thereof by a predetermined program, and transmitting the operation data thereof in accordance with the information of the transmitting condition maintained by said means of maintaining the information of the transmitting condition;

a means of setting the information of the transmitting condition

including at least one of the electric power consumption and the electric current consumption maintained by said means of maintaining the information of the transmitting condition in accordance with predetermined demand data for setting the information of the transmitting condition received through the network;

a means of setting a reception of the operation data for receiving the operation data including at least one of the electric power consumption and the electric current consumption transmitted from another appliance in accordance with the demand data for setting the information of the receiving condition received through the network, and setting a necessary storage of the operation data in a corresponding memory thereto; and

a means of controlling a linked operation for controlling an efficient operation thereof in accordance with the operation data of another appliance received and set by the means of setting the reception of the operation data;

said wearable device for setting a linked operation comprising:

a means of transmitting demand data for setting the information of the transmitting condition for transmitting predetermined demand data for setting the information of the transmitting condition including at least one of the electric power consumption

and the electric current consumption to each of the appliances, and setting the information of the transmitting condition in setting the network and introducing another appliance thereto; and

a means of transmitting demand data for setting the information of the receiving condition of the operation data for transmitting demand data for setting the reception of the operation data including at least one of the electric power consumption and the electric current consumption to each of the appliances, and receiving and setting the operation data in setting the network and introducing another appliance thereto.

10. (Cancelled/Amended) A control network system of an appliance according to Claim 1,

wherein an operation of at least one of said plurality of appliances connected through the network can be directly controlled by a user with a common remote controller; and

said controller or said means of controlling a linked operation is provided for said remote controller.

11. (Cancelled) A control network system of an appliance according to Claim 10, wherein said remote controller comprises a means of displaying a warning of a disorder when the disorder is caused such that at least one of a total electric power consumption and a total electric current of the

plurality of appliances surpasses a limited value due to an operation of another appliance by the user.

12. (Cancelled/Amended) A control network system of an appliance according to Claim 1, wherein a remote controller of at least one of said plurality of appliances connected through the network comprises a means of displaying a warning of a disorder when the disorder is caused such that at least one of a total electric power consumption and a electric current of the plurality of appliances surpasses a limited value due to an operation of another appliance by a user.

13. (New) A method of controlling an appliance in a home network system for controlling a plurality of appliances, the method comprising:

maintaining in a first appliance, condition information about the appliance and setting information for communicating the condition information to a second appliance; and

transmitting from the first appliance, the condition information to the second appliance in accordance with the communication settings.

14. (New) The method according to claim 13, wherein the setting information comprises first timing information

indicating communication of the condition information upon every change in the condition information or second timing information indicating periodic communication of the condition information.

15. (New) The method according to claim 13, wherein the setting information comprises information indicating presence or absence of at least one of the first and second timing information.

16. (New) The method according to claim 13, wherein the setting information comprises information about a time interval of the periodic communication.

17. (New) The method according to claim 16, wherein the setting information comprises information about an address of a receiver.

18. (New) The method according to claim 14, wherein the setting information comprises information about a time interval of the periodic communication.

19. (New) The method according to claim 18, wherein the

setting information comprises information about an address of an informed system-connected object.

20. (New) The method according to claim 16, wherein the setting information comprises information about a time interval of the periodic communication.

21. (New) The method according to claim 20, wherein the setting information comprises information about an address of an informed system-connected object.

22. (New) The method according to claim 13, wherein the setting information includes information about an address of an informed system-connected object.

23. (New) The method according to claim 14, wherein the setting information includes information about an address of an informed system-connected object.

24. (New) The method according to claim 15, wherein the setting information includes information about an address of an informed system-connected object.

25. (New) A method of controlling a first appliance in a home bus system for controlling a plurality of appliances comprising a first appliance and a second appliance, the method comprising:

maintaining condition information in the first appliance; and

transmitting predetermined data to the second appliance when the condition information meets designated transmitting conditions.

26. (New) The method according to claim 25, wherein information about the transmitting conditions comprises first information about a transmission designation indicating that transmission is made for every change in the condition information, and second information about a transmission designation indicating that transmission is made to a broadcast address or to a specific address.

27. (New) The method according to claim 26, wherein the information about the transmitting conditions comprises information about a receiver.

28. (New) The method according to claim 25, wherein information about the transmitting conditions comprises a transmission designation indicating that transmission is made periodically, information about a time interval for transmission, and information about a transmission designation indicating that transmission is made to a broadcast address or to a specific address.

29. (New) The method according to claim 28, wherein the information about the transmitting condition includes information about a receiver.

30. (New) A method of controlling a second appliance in a home bus system for controlling a plurality of appliances comprising a first appliance and a second appliance, the method comprising:

receiving and maintaining in a second appliance, data transmitted from the first appliance; and

self-controlling by the second appliance in accordance with the data.

31. (New) A method of controlling a second appliance in a home bus system for controlling a plurality of appliances comprising a first appliance and a second appliance, the method comprising:

receiving in a second appliance, data transmitted from the first appliance;

linking between second and first appliances based on the received data; and

storing information in the second appliance, about the first appliance upon linkage with the first appliance.

32. (New) A method of setting conditions for transmission of data about a first appliance in a home bus system for controlling a plurality of appliances comprising the first appliance and a second appliance, the method comprising:

transmitting demand information from a first appliance for querying presence or absence of the second appliance, wherein the first appliance is for controlling the second appliance by a communication linkage;

receiving in the first appliance, response information transmitted by the second appliance in response to the demand information transmitted by the first appliance; and

transmitting by a first appliance, a setting demand to the second appliance for causing the second appliance to set transmitting conditions, when the response information does not include information about the second appliance transmitting conditions, or when transmitting conditions are not set.

33. (New) An appliance in a home bus system for controlling a plurality of appliances, comprising:

condition control means for maintaining attribute information indicating a condition of the appliance;

setting information maintenance means for maintaining setting information designating a transmission method for every piece of the attribute information; and

attribute transmission means for transmitting the attribute information to another appliance, in accordance with the setting information.

34. (New) A first appliance in a home bus system for controlling a plurality of appliances comprising a first appliance and a second appliance, the first appliance comprising:

condition control means for maintaining a condition of the

first appliance;

means for maintaining transmitting conditions information for transmission to another appliance; and

data transmission means for transmitting a predetermined data to the second appliance when the first appliance meets the transmitting conditions.

35. (New) An appliance in a home bus system for controlling a plurality of appliances, comprising:

reception means for receiving data transmitted from another appliance;

conditions maintenance means for maintaining interlock conditions for interlock with another appliance; and

interlock control means for performing interlock control on the appliance when the received data meets the interlock conditions.

36. (New) An appliance in a home bus system for controlling a plurality of appliances, comprising:

transmission means for transmitting demand information for querying presence or absence of another appliance to be linked with the appliance;

reception means for receiving response information transmitted from said another appliance in response to the demand information; and

conditions setting demand means for transmitting a setting demand to said another appliance for setting transmitting conditions, when the response information does not include information about the transmitting conditions for transmission to the appliance, or when information about the transmitting conditions is not set.

37. (New) The appliance according to claim 36, wherein the transmitting conditions indicate conditions for said another appliance to transmit data to the appliance, the data indicating an operating condition of said another appliance.

38. (New) The appliance according to claim 37, further comprising a linked control means for performing a linked operation in accordance with data about an operating condition of said another appliance, the data being transmitted from said another appliance.

39. (New) An appliance in a home bus system for controlling

a plurality of appliances, comprising:

reception means for receiving demand information from another appliance, the demand information querying presence or absence of another appliance to be operated in linkage with the appliance;

conditions maintenance means for maintaining information about transmitting conditions for linkage with said another appliance;

search means for searching for the information about transmitting conditions for linkage with the appliance from the conditions maintenance means; and

transmission means for transmitting response information comprising the information about transmitting conditions, in response to the demand information.

40. (New) The appliance according to claim 39, further comprising an operation condition data control means for maintaining an operating condition, wherein

the appliance is for transmitting an operating condition of the appliance to another appliance, in accordance with the transmitting conditions.